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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/698,918  
Filing Date: October 27, 2000  
Appellant(s): LAVELLE ET AL.

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Michael Morano  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 7/26/2004.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

The brief does not contain a statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief. Therefore, it is presumed that there are none. The Board, however, may exercise its discretion to require an explicit statement as to the existence of any related appeals and interferences.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims 2-9 and 15-18 stand or fall with claim 1; claim 27 stands or fall with claim 26; claim 10 stand or fall with claim 1; and claim 20-24 stand or fall with claim 1 because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) Claims Appealed**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) Prior Art of Record**

6,380,978	Adams et al.	4-2002	-
5,610,822	Murphy	3-1997	
6,301,367	Boyden et al	10-2001	

**(10) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims: , Claims 1-9, 15-18 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Adams et al* (U.S. Patent 6,380,978) in view of *Murphy* (U.S. Patent-5,610,822) and further in view of Boyden et al. (U. S. patent NO. 6,301,367).

Claims 10 is rejected under 35 U.S.C. 103(x) as. being unpatentable over Adams et al (U.S. Patent 6,380,978) in view of *Murphy* (U.S. Patent 5,610,822), and further in view of *Boyden et al* (U.S. Patent 6,301,637), as in claim 1, and further in view of *Burke et al* (U.S. Patent 6,134,223).

Claims 20-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Adams et al* (U.S. Patent 6,380,978) in view of *Murphy* (U.S. Patent 5,610,822), and further in view

of Boyden et al (U.S. Patent 6,301,637), as in claim 1 above, and further in view of Hylton et al (U.S. Patent 5,793,413).

These rejections are set forth in a prior Office Action, mailed on January 28, 2004.

**(11) Response to Argument**

**A. The combination of Adams, Murphy and Boyden do indeed have legal grounds to support a prima facie case of obviousness against claims 1, 25 and 26.**

Adams, Murphy and Boyden together teach, disclose or suggest all the various elements of claims 1, 25, 26.

Specifically, Adams teaches an invention relating to processing of video images using a portable video display device wherein applications include use in an automobile (see column 5, lines 36-46, 56-60, figure 2A). Furthermore, Adams teaches a display device wherein viewing by a passenger at the rear seat of an automobile would be accomplished (see figure 2A).

Also, Adams teaches how the portable DVD player also includes a digital processing system including a decoder, an image enhancement engine, and a display controller wherein the decoder (28) receives signals from a DVD inserted into the enclosure to provide a decoded, interlaced video signal (column 3, lines 4-12, figure 3). Furthermore, Adams teaches an audio and infrared link (32) and how an IR transmitter for wireless headphones may be provided, as may stereo speakers with small stereo power amp for presentations or playback without headphones (column 7, lines 24-27, figure 3; see also column 7, lines 4-24). Furthermore, Adams teaches two

input sources by teaching video data input and audio data input (see figure 4 at video data and audio data).

However, Adams does not teach the concept of at least two input sources wherein one input source provides signals to one headphone and a second input source providing signals to a second headphone.

On the other hand, Murphy teaches this concept by providing different input sources to different users via multiple headphones such that multiple audio output units such as headphones (40a-40n) accommodate a plurality of users simultaneously (column 3, lines 26-34, figure 2 at 36, 40a-40n).

Thus, it would have been obvious to a person of ordinary skill in the art to combine Adams and Murphy because while the combination of Adams and Murphy teaches providing wireless signals to headphones by the method of providing an audio and infrared link (32) and an IR transmitter for wireless headphones (column 7, lines 24-27, figure 3; see also column 7, lines 4-24), Murphy teaches the concept of providing different input sources to different users via multiple headphones wherein Murphy's invention provides for having multiple audio output units such as, for example, headphones (40a-40n) to accommodate a plurality of users simultaneously (column 3, lines 26-34, figure 2 at 36, 40a-40n). The motivation for combining these inventions would have been to provide multiple audio and video outputs via headphones (40a-40n) to a plurality of users simultaneously (column 3, lines 26-34, figure 2 at 36, 40a-40n).

Furthermore, Adams and Murphy do not teach the display the headphones with left and right audio channels. On the other hand, Boyden teaches how to achieve an audio

system that has left and right audio channels with different frequency signals in the audio system (see column 9, lines 25-35, figure 13 & 14 at 120; see *also* column 9, lines 59-61, figure 15 at 170; see *generally* figure 18 at 210, 212).

Thus, it would be obvious to a person of ordinary skill in the art to combine Adams, Murphy and Boyden because while the combination of Adams and Murphy teach an invention relating to processing of video images using a portable video display device wherein applications include use in an automobile (see column 5, lines 36-46, 56-60, figure 2A), Boyden teaches how to achieve an audio system that has left and right audio channels with different frequency signals in the audio system. The motivation for combining these inventions would have been to achieve maximum comfort and stability to the ears of a listener (see column 10, lines 55-65).

Hence, the combination of Adams, Murphy and Boyden have articulated legally sufficient reasons to support a prima facie case of obviousness against claims 1, 25 and 26.

**1. The combination of Adams, Murphy and Boyden do teach, disclose or suggest a single transmitter for wirelessly transmitting audio signals on left and right channels.**

Adams, Murphy and Boyden clearly teach how to achieve a single transmitter for wirelessly transmitting audio signals on left and right channels.

First, Adams teaches an audio and infrared link (32) and how an IR transmitter for wireless headphones may be provided (column 7, lines 24-27, figure 3; see *also* column

7, lines 4-24). Furthermore, Adams teaches two input sources by teaching video data input and audio data input (see figure 4 at video data and audio data).

Second, although Adams does not teach the concept of at least two input sources wherein one input source provides signals to one headphone and a second input source providing signals to a second headphone, Murphy teaches this concept by providing different input sources to different users via multiple headphones such that multiple audio output units such as headphones (40a-40n) accommodate a plurality of users simultaneously (column 3, lines 26-34, figure 2 at 36, 40a-40n).

Third, the motivation for combining Adams and Murphy's inventions would have been to provide multiple audio and video outputs via headphones (40a-40n) to a plurality of users simultaneously so that a user has the flexibility of accessing any desired output (column 3, lines 26-34, figure 2 at 36, 40a-40n).

Fourth, the purpose of Boyden is to teach left and right audio channels. Hence, while Adams and Murphy do not teach the display the headphones with left and right audio channels, Boyden teaches how to achieve an audio system that has left and right audio channels with different frequency signals in the audio system (see column 9, lines 25-35, figure 13 & 14 at 120; see also column 9, lines 59-61, figure 15 at 170; see generally figure 18 at 210, 212). The motivation for combining these inventions would have been to achieve maximum comfort and stability to the ears of a listener (see column 10, lines 55-65).



Hence, it is a red-herring argument for Applicant to argue that Boyden fails to address the use of a single wireless transmitter to transmit audio signals on left and right audio channels from at least two input sources because this is the aspect that the combination of Adams and Murphy emphasize wherein Adams teaches an IR transmitter and Murphy teaches at least two input sources wherein one input source provides signals to one headphone and a second input source providing signals to a second headphone.

Fifth, Applicant argues Boyden fails to address the use of a single wireless transmitter to transmit audio signals on left and right audio channels from at least two input sources to a plurality of wireless headphone sets, and that Boyden discloses two transmitters. Assuming arguendo that Applicant's contention is true, Applicant still fails to overcome Boyden because Applicant claims state explicitly "... at least one wireless transmitter ...". Clearly, two transmitters satisfy the feature of "at least one transmitter." Moreover, Adams reference serves the function of teaching the wireless transmitter by teaching an IR transmitter for wireless headphones (column 7, lines 2427, figure 3; see also column 7, lines 4-24).

Similarly, with respect to claim 25, applicant argues that Boyden teaches away from the more efficient design claimed in claim 25 because Boyden teaches how four transmitters instead of two would be required to transmit audio signals. However, a clear reading of Applicant's claim 25 clearly stipulates "at least two wireless transmitters." As such, assuming arguendo that Boyden does indeed teach four transmitter in the manner alleged by Applicant, Boyden still indeed teaches over applicant's claim 25 because four transmitters does clearly read on at least two transmitters.

**2. The combination of Adams, Murphy and Boyden do teach the use of different frequencies between different wireless headphone sets.**

Applicant argues that there is no teaching or suggestion in the cited references to use different frequencies for each wireless headphone set. However, Adams teaches this concept of different frequencies for each wireless headphone set by teaching how the audio & infrared link outputs to multiple headphones outputs that are corded and IR corded (see figure 3 at 32 *connected to headphone output (corded) & headphone output (IR cordless)*). It is clear to anyone skilled in the art that these headphone that operate in a corded, and IR cordless mode operate at different frequencies. Hence, applicant's assertion that there is no teaching or suggestion in the cited references to use different frequencies for each wireless headphone set is groundless.

Furthermore, Applicant argues that Murphy does not address wireless transmission to multiple headphone sets. However, this is one of the reasons Adams is used as the primary reference. More specifically, Adams reference serves the function of teaching the wireless transmitter by teaching an IR transmitter for wireless headphones (column 7, lines 24-27, figure 3; see *also* column 7, lines 4-24) wherein the audio & infrared link outputs to multiple headphones outputs that are corded and IR corded (see figure 3 at 32 *connected to headphone output (corded) & headphone output (IR cordless)*). The deficiency which Murphy cures is the issue of Adams not teaching the concept of at least two input sources wherein one input source provides signals to one headphone and a second input source providing

signals to a second headphone. Hence, applicant has failed to distinguish how his invention overcomes Adams as it relates to wireless transmission to multiple headphones.

Applicant also argues that Adams fails to teach the use of left and right channels. However, the combination of the cited reference address this issue eloquently. More specifically, while the combination of Adams and Murphy teach providing different input sources to different users via multiple headphones such that multiple audio output units such as headphones (40a-40n) accommodate a plurality of users simultaneously (column 3, lines 26-34, figure 2 at 36, 40a-40n), Boyden teaches how the headphones would have left and right audio channels (see column 9, lines 25-35, figure 13 & 14 at 120; see also column 9, lines 59-61, figure 15 at 170; see generally figure 18 at 210, 212).

Thus, it would be obvious to a person of ordinary skill in the art to combine Adams, Murphy and Boyden because while the combination of Adams and Murphy teach an invention relating to processing of video images using a portable video display device wherein applications include use in an automobile (see column 5, lines 36-46, 56-60, figure 2A), Boyden teaches how the headphones would have left and right audio channels. The motivation for combining these inventions would have been to achieve maximum comfort and stability to the ears of a listener (see column 10, lines 55-65).

As such, the combination of Adams, Murphy and Boyden clearly teach applicant's claimed invention as espoused in claims 1 and 25.

**3. The combination of Adams, Murphy and Boyden teach the use of wireless transmitters for wirelessly transmitting audio signals from the first and second input sources to a plurality of wireless headphone sets.**

Applicant argues with respect to claims 25 and 26 that Adams contains no teaching regarding multiple wireless transmitters for transmission of programs from more than one source to multiple wireless sets, and that Murphy fails to cure this deficiency in Adams.

In response to this contention by Applicant, it appears that Applicant has failed to appreciate the teachings of the combination of Adams and Murphy. More specifically, Adams teaches the wireless feature by teaching an audio and infrared link (32) and how an IR transmitter for wireless headphones may be provided, as may stereo speakers with small stereo power amp for presentations or playback without headphones (column 7, lines 24-27, figure 3; see also column 7, lines 4-24). The aspect of multiple transmissions of programs to multiple headphones is clearly taught by Murphy (figure 2 at 40a-40n). As such by combining Adams and Murphy, it would have been obvious to achieve applicant's claimed invention because the combination of Adams and Murphy teaches providing wireless signals to headphones via IR transmitter for wireless headphones (column 7, lines 24-27, figure 3; see also column 7, lines 4-24) and Murphy teaches the concept of providing different input sources (figure 2 at 26, 28, 30, 32) to different users via multiple headphones via headphones (40a-40n) to accommodate a plurality of users simultaneously (column 3, lines 26-34, figure 2 at 36, 40a-40n). The motivation for combining these inventions would have been to provide multiple audio and video outputs via headphones (40a-40n) to different users at the same time so that they can access different inputs at the same time (column 3, lines 26-34, figure 2 at 36, 40a-40n).

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Furthermore, Applicant argues that Boyden relates to a single user system, and that Boyden does not contemplate multiple headphone sets that allows to listen audio from multiple sources. This argument is flawed for two reasons. First, applicant's claims 1, 25 and 26 refer to use of the device "a passenger." As such, Boyden appears to read on applicant's claims. Second, the combination of Adams and Boyden address the aspect that applicant alleges Boyden fails to teach. That is, by combining Adams and Murphy, it would have been obvious to achieve applicant's claimed invention because the combination of Adams and Murphy teaches providing wireless signals to headphones via IR transmitter for wireless headphones (column 7, lines 24-27, figure 3; see also column 7, lines 4-24) and Murphy teaches the concept of providing different input sources (figure 2 at 26, 28, 30, 32) to different users via multiple headphones via headphones (40a-40n) to accommodate a plurality of users simultaneously (column 3, lines 26-34, figure 2 at 36, 40a-40n). The motivation for combining these inventions would have been to provide multiple audio and video outputs via headphones (40a-40n) to different users at the same time so that they can access different inputs at the same time (column 3, lines 26-34, figure 2 at 36, 40a-40n).

As such, the combination of Adams, Murphy and Boyden clearly teach applicant's claimed invention as espoused in claims 25 and 26.

**4. There is motivation to combine Adams, Murphy and Boyden to develop Applicants claimed display device.**

Throughout the Office Action, and in response to applicant's arguments, Examiner has articulated cogent reasons for combining these references. Applicant chooses not to appreciate the essence of the holistic teachings of the combinations of theaw references. Rather, it is evident that Applicant focuses on what a secondary reference fails to teach, rather than on the deficiencies that the particular reference is curing. For instance, while Adams focuses on teaching an aspect of achieving wireless headphones, Murphy focuses of providing multiple headphones with various types of input sources. Hence, by combining Adams and Murphy, one of ordinary skill in the art would be able to achieve multiple wireless headphones that would have access to multiple sources. The motivation for such a combination is to provide multiple audio and video outputs via headphones (40a-40n) to different users at the same time so that they can access different inputs at the same time (column 3, lines 26-34, figure 2 at 36, 40a-40n).

Applicant's approach to the combination of these references is to assert that Murphy fails to teach wireless headphones. Of course, but this is what Adams teaches . and the essence of Murphy has been highlighted, and the motivation for combining Adams and Murphy has been, at this point, overemphasized. The same approach by Applicant is used repeatedly. Another instance, Applicant is asserting that Adams fails to teach multiple headphone sets. Indeed, this is true, but this is exactly what Murphy is espousing, and the motivation is clearly espoused above.

By reviewing the teachings of each reference and the deficiencies that each reference is curing, there is no doubt that a person of ordinary skill in the

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art would conclude that there are clear motivations to combine Adams, Murphy and Boyden. For the above reasons, it is believed that the rejections should be sustained.

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Respectfully submitted,

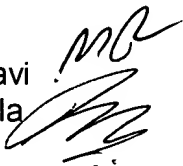
Amr Awad



Amr A. Awad.  
August 9, 2005

**AMR A. AWAD  
PRIMARY EXAMINER**

Conferees  
Michael Razavi  
Bipin Shalwala



F. CHAU & ASSOCIATES, LLC  
130 WOODBURY ROAD  
WOODBURY, NY 11797